Royal Horticultural Society

Sharing the best in Gardening

R3112

UNDERSTANDING THE SELECTION & USE OF LANDSCAPING ELEMENTS IN THE GARDEN

Level 3

Thursday 28 June 2012

11:15 – 12:30

Written Examination

Candidate Number:…….

Candidate Name:…….

Centre Number/Name:……

IMPORTANT – Please read carefully before commencing.

i) The duration of this paper is **75** minutes.

ii) **ALL** questions should be attempted.

iii) **EACH** question carries **10 marks**.

iv) Write your answers legibly in the spaces provided.

v) Use **METRIC** measurements only.

vi) Where plant names are required, they should include genus, species and where appropriate, cultivar.

vii) Please note, sufficient lined space is provided. It is **NOT** necessary that all lined space is used in answering the questions.

Ofqual Unit Code A/601/3794

ANSWER ALL QUESTIONS

MARKS

Q1 a) Describe how the design and function of water features in a garden influence the choice of hard landscaping materials for that feature. **6**

MARKS

b) Describe **TWO NAMED** deep water aquatic plants, **EACH** from a different genus. **4**

Total Mark

MARKS

Q2 Review how considerations of safety may influence the choice of hard landscaping structures and materials used in the garden of a family with young children. **10**

MARKS

Total Mark

Please turn over/…..

MARKS

Q3 Discuss, with **EXAMPLES**, how **EACH** of the following contributes to the sustainable use of hard landscaping materials in the garden:

i)	recycling;	**3**
ii)	local sourcing;	**2**
iii)	on site grown materials;	**3**
iv)	life span.	**2**

MARKS

Total Mark

Please turn over/…..

MARKS

Q4 a) State, for a garden with permanently wet soil:

i) **THREE NAMED** plants; **3**
ii) **THREE** suitable hard landscape features. **3**

Please see over/…..

MARKS

b) Evaluate the use of a soakaway in a garden with permanently wet soil. **4**

Total Mark

Please turn over/…..

MARKS

Q5 a) Evaluate the contribution of hedges to the overall design of a formal garden. **7**

MARKS

b) Name **THREE** suitable plants for hedges in a formal garden. **3**

Total Mark

Please turn over/…..

MARKS

Q6 Describe **FIVE NAMED** 'non-woody' plants for winter display. **10**

Please see over/…..

MARKS

Total Mark

Please turn over/…..

MARKS

Q7 a) Describe **TWO NAMED** calcifuge plants suitable for a woodland situation. **4**

b) Describe **THREE NAMED** climbing plants suitable for a woodland site. **6**

Please see over/…..

MARKS

Total Mark

Please turn over/…..

MARKS

Q8 a) Name **TWO** species of grass particularly suitable for including in a seed mix for a shady situation. **2**

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b) Describe the following elements of maintenance routines for a shady lawn:

i) feeding; **2**
ii) aeration; **2**
iii) repair of worn out areas; **2**
iv) mowing. **2**

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Please see over/…..

MARKS

Total Mark

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Thursday 28 June 2012

Candidates Registered	**98**		**Total Candidates Passed**	**58**	**67.44%**
Candidates Entered	86	87.76%	Passed with Commendation	13	15.12%
Candidates Absent	7	7.14%	Passed	45	52.32%
Candidates Deferred	2	2.04%	Failed	28	32.56%
Candidates Withdrawn	3	3.06%			

Q1 a) Describe how the design and function of water features in a garden influence the choice of hard landscaping materials for that feature.

b) Describe **TWO NAMED** deep water aquatic plants, **EACH** from a different genus.

The first part of the question required candidates to describe a range of materials suitable for garden water features with specific reference to their function and design. Marks were awarded for describing a range of materials that could be selected in a water feature including construction materials, materials for margins, edgings and surrounding hard landscaping, as well as decorative features such as rills and fountains. The best answers described how the materials selected would make a positive contribution to the style of a feature, such as formal or informal, contemporary or traditional.

Marks in the second part were awarded for describing correctly named plants which grow in deep water. No marks were given for plants which grow only in moist soil or boggy marginal situations.

Q2 Review how considerations of safety may influence the choice of hard landscaping structures and materials used in the garden of a family with young children.

The question required a discussion of how safety may influence the selection of structures and materials used in a garden of a family with young children. The question referred to a domestic garden situation so points which would be relevant only to public gardens were disallowed. Many candidates were able to list and describe a range of structures and materials that would be chosen with safety from trips and falls in mind, such as materials for play surfaces and paths, as well as appropriate specifications for patios and steps, with handrails and balustrading on steep slopes and raised areas. Better answers considered the wider aspects of safety for children including secure boundary fencing, with childproof gates and catches. Any depth of open water is potentially fatal for young children; therefore marks were only awarded where candidates described ponds being completely secured with locked access or covering grill.

Q3 Discuss, with **EXAMPLES**, how **EACH** of the following contributes to the sustainable use of hard landscaping materials in the garden:

i) recycling;
ii) local sourcing;
iii) on site grown materials;
iv) life span.

Considerations of the sustainable use of materials in the garden involve minimising the use of scarce or limited resources, the use of fossil fuels for manufacture and transportation, the impact of pollution and the destruction of habitats. Candidates were required to give examples and reasons for each of:

Recycling. This is sustainable because it re-uses existing materials and avoids the need for further extraction of the Earth's limited resources such as quarried stone, and other raw materials. Recycling also reduces the need for landfill. Many materials can be put to an alternative use such as old railways sleepers for building steps and retaining walls. Candidates gave a wide range of acceptable examples such as reclaimed stone and brick, the alternative use of household objects for containers, glass bottles for building walls, and scrap metal to craft decorative features.

Local sourcing. The primary reason for sourcing locally is to avoid the damaging effect of transporting materials over a long distance which requires the consumption of fossil fuels which emit CO2 and other pollution. Marks were not awarded for stating cost as the main cause of concern - lower cost is desirable but not always possible. Examples include locally grown timber from certified forests, locally quarried stone and gravel.

On site grown materials. Growing materials on-site is sustainable as it can reduce the need for transportation, and the materials produced are renewable. Examples are hazel and willow coppicing to supply materials for fencing and plant supports; trees grown for timber for garden structures and furniture. While these materials are growing they provide a habitat for local wildlife.

Life span. When selecting materials with sustainability in mind consideration should be given to the environmental impact of a material over the whole of its life span including manufacture, transportation, installation and maintenance. An example might be decking boards made from locally grown softwood which require annual maintenance with polluting chemicals, whereas oak boards will require less maintenance and have a much longer life-span.

Q4 a) State, for a garden with permanently wet soil:

i) **THREE NAMED** plants;
ii) **THREE** suitable hard landscape features.

b) Evaluate the use of a soakaway in a garden with permanently wet soil.

Acceptable answers to the first part of the question include any plant from different genera suitable for growing in permanently wet soil. Marks were not awarded for floating plants or plants growing in deep water.
Hard landscape features suitable for a garden with permanently wet soil could include raised beds with improved soil conditions, paved areas e.g. patio, ponds and water features, raised walkways, decking on a suitable base.

In the final part, candidates were rewarded for correctly identifying at least two distinct causes of permanently wet soil e.g. heavy soils/clay soils, compacted soils, soils subject to high run-off/collection, high water-table. The highest marks were gained for evaluating to what extent each of these situations would be improved by the use of a soak-away. A description of the construction of a soakaway was not required.

Q5 a) Evaluate the contribution of hedges to the overall design of a formal garden.

b) Name **THREE** suitable plants for hedges in a formal garden.

In general candidates answered this question by stating a variety of situations where hedges are used in a formal garden, sometimes with an example. The best answers stated a number of important contributions of hedges to the formality of the garden, with a description, and where relevant, with named plant examples. A brief mention would gain only partial marks - as an example many candidates stated only that hedges can provide structure with no example, (which could be that the garden is divided into ‘rooms’ with high yew hedges either side of a central axis). Better answers related closely to formal design and included a range of possible contributions such as:

- division/axes,
- geometry/perspective/symmetry,
- light and shade/mood,
- screening/privacy,
- balance, scale and proportion,
- colour and texture,
- seasonality.

No marks were given for comments relating to maintenance.

Woody plants which retain their foliage in winter, with dense foliage suitable for close clipping are very suitable for formal hedging, such as Buxus, Taxus, Fagus and Carpinus.

Q6 Describe **FIVE NAMED** 'non-woody' plants for winter display.

This question required a description of five non-woody plants for winter display. Non-woody describes plants which do not retain a permanent woody stem throughout the year. Any acceptable evergreen or deciduous plant with an **additional** winter merit was accepted (e.g. flowers, berries, bracts). No marks were given for late summer/autumn-flowering grasses.

Q7 a) Describe **TWO NAMED** calcifuge plants suitable for a woodland situation.

b) Describe **THREE NAMED** climbing plants suitable for a woodland site.

The majority of candidates were able to name and describe two plants intolerant of alkaline soil suitable for growing in shade or partial shade. Many candidates selected species of Rhododendron, Camellia and Pieris.

The second part of the question required the botanical names and descriptions of three climbing plants for a woodland site. Correct answers included plants which thrive in shade or semi-shade and which possess a mechanism for climbing, for instance tendrils, twining leaf stems, or adventitious roots. Wall shrubs without a climbing adaptation were not accepted.

Q8 a) Name **TWO** species of grass particularly suitable for including in a seed mix for a shady situation.

b) Describe the following elements of maintenance routines for a shady lawn:

i) feeding;
ii) aeration;
iii) repair of worn out areas;
iv) mowing.

Correct answers to the first part of the question included grass species that should be selected to cope in reduced light conditions. Examples include *Agrostis tenuis*, *Festuca ovina*, and *Poa nemoralis*.

The second part of the question required candidates to clearly identify how annual maintenance routines should be adapted to suit turf grown in shady situations. Responses containing accurate detail about timing, equipment and methods obtained the highest marks. Many candidates did not distinguish adequately between the methods suitable for shady lawns compared to lawns grown in sunny conditions (examples would be the need for using a half strength spring lawn feed, and for the mowing cut to be set much higher).